REMARKS/ARGUMENTS:

In Applicant's response dated March 22, 2006, in Section B, Objections to the Specification Under 35 U.S.C. § 112, First Paragraph, Applicant made reference to the following publications:

1. Coulson, J. M., et al., Chemical Engineering: Fluid Flow, Heat Transfer and Mass Transfer, Vol. 1, Part 2, Butterworth and Heinemann, Oxford, 1999 (cited on page 28 of the Response to Office Action). This reference may be found in the Appendix of this Supplemental Amendment under Tab 1. The reference is a text book, and Applicant has included copies of the cover of the text book, the title page, the copyright page, the table of contents, and pages 381-561 pertaining to a parallel-flow or counter-flow shell and tube heat exchanger.

2. Cengel, Y. A., Heat Transfer: A Practical Approach, Chapter 10, McGraw-Hill, Boston, 1998 (cited on page 29 of the Response to Office Action). This reference may be found in the Appendix of this Supplemental Amendment under Tab 2. The reference is a text book, and Applicant has included copies of the cover of the text book, the title page, the copyright page, and pages 569-609 pertaining to a separate fluid heat exchanger.

3. Lamarsh, J. R., et al., Introduction to Nuclear Engineering, 3rd Edition, Chapter 8, Addison-Wesley publishing Company, London, 2001 (cited on page 29 of the Response to Office Action). This reference may be found in the Appendix of this Supplemental Amendment under Tab 3. The reference is a text book, and Applicant has included copies of the title page, the copyright page, and pages 403-458 pertaining to a separate fluid cooling system.

4. Stacey, W. M., Nuclear Reactor Physics, John Wiley & Sons, Inc., New York, 2001 (cited on page 29 of the Response to Office Action). This reference may be found in the Appendix of this Supplemental Amendment under Tab 4. The reference is a text book, and Applicant has included copies of the title page, the copyright page, and pages 267-269 pertaining to designing cooling systems.

5. "Innovative Technologies for Nuclear Fuel Cycles and Nuclear Power," International Conference held in Vienna, International Atomic Energy Agency (IAEA), Electric Utility Cost Group Inc., International Science and Technology Centre, and World Nuclear Association, 2003 (cited on page 29 of the Response to Office Action). The reference is a collection of conference and symposium papers, and Applicant has included copies of the cover, the title page, the copyright page, the forward, and the table of contents. Though the entire document is an outstanding summary of nuclear reactor technologies, and almost all of them discuss in some detail cooling methods for these reactors, Applicant has only included five papers that are the most pertinent to scrubbing and cooling technologies, particularly the pyrochemical process. These five references may be found in the Appendix of this Supplemental Amendment under Tab 5.

a. Vishnevskiy, Y. G., et al., "Technical Aspects of Innovative Nuclear Systems Including Reliability and Safety" pp 85-92. This article pertains to the use of a solid as a coolant.

b. Hopwood, J. M., et al., "Innovative Reactor Technologies - Enabling Success," pp 171-179. This article pertains to light water coolant systems.

c. Sato, K., "State of the Art of Second Phase Feasibility Study on Commercialized Fast Reactor Cycle System," pp 219-241. This article summarizes several fuel scrubbing techniques and cooling techniques, particularly the pyrochemical process.)

d. Adamov, E. O., et al., "Nuclear Power Development on the Basis of New Nuclear Reactor and Fuel Cycle Concepts," pp 243-257. This article pertains to liquid lead and lead-bismuth coolant.

e. Zrodnikov, A. V., "SVBR-75/100 -- Lead-Bismuth Cooled Small Power

Modularfast Reactor for Multi-Purpose Usage," pp 371-394. This article pertains to liquid lead and lead-bismuth coolant.

6. Volkovicha, V. A., et al., "Treatment of Molten Salt Wastes by Phosphate Precipitation: Removal of Fission Product Elements After Pyrochemical Reprocessing of Spent Nuclear Fuels in Chloride Melts," Journal of Nuclear Materials, Volume 323, Issue 1, pp 49-56, November 15, 2003 (cited on page 29 of the Response to Office Action). This reference may be found in the Appendix of this Supplemental Amendment under Tab 6. This article, which may also be found at the following link: http://www.rcgg.ufrgs.br/InproConf-2003.pdf, pertains to pyrochemical separation methods.

7. Volkovicha, V. A., et al., "Behavior of Molybdenum in Pyrochemical Reprocessing: A Spectroscopic Study of the Chlorination of Molybdenum and its Oxides in Chloride Melts," Journal of Nuclear Materials, Volume 323, Issue 1, pp 93-100, November 15, 2003 (cited on page 29 of the Response to Office Action). This reference may be found in the Appendix of this Supplemental Amendment under Tab 7. This article pertains to pyrochemical separation methods.

8. Usami, T., et al., "Pyrochemical Reduction of Uranium Dioxide and Plutonium Dioxide by Lithium Metal," Journal of Nuclear Materials, Volume 300, Issue 1, pp 15-26, January 2002 (cited on page 30 of the Response to Office Action). This reference may be found in the Appendix of this Supplemental Amendment under Tab 8. This article pertains to pyrochemical separation methods.

9. Haschke, J. M., et al., "Analysis and Characterization of Plutonium in Pyrochemical Salt Residues," Journal of Nuclear Materials, Volume 277, Issues 2-3, pp 175-183, February 2000 (cited on page 30 of the Response to Office Action). This reference may be found in the Appendix of this Supplemental Amendment under Tab 9. This article pertains to pyrochemical separation methods.

10. D. M. Smith, et al., "Plutonium Pyrochemical Salts Oxidation and Distillation Processing: Residue Stabilization and Fundamental Studies," American Institute of Physics (AIP) Conference Proceedings, Volume 532, Issue 1, pp 238-328, July 2000 (cited on page 30 of the response to Office Action). This reference may be found in the Appendix of this Supplemental Amendment under Tab 10. This article pertains to pyrochemical separation methods.

11. Koyama, T., et al., "Integrated Experiments to Demonstrate Innovative Reprocessing of Metal and Oxide Fuel by Means of Electrometallurgical Technology," International Conference held in Vienna, International Atomic Energy Agency (IAEA), Electric Utility Cost Group Inc., International Science and Technology Centre, and World Nuclear Association, pp 289-300, 2003 (same source as in No. 5 above, cited on page 30 of the Response to Office Action). This reference may be found in the Appendix of this Supplemental Amendment under Tab 11. This article pertains to electrometallurgical methods.

12. Tokiwai, M., et al., "Development of Metallic Uranium Recovery Technology From Uranium Oxide by Li Reduction and Electrorefining," Journal of Nuclear Science And Technology, Supplement 3, pp 917-920, November 2002. This reference may be found in the Appendix of this Supplemental Amendment under Tab 12. This article pertains to Li reduction and electrorefining methods. Applicant also offers the following additional article: Iizuka, M., "Development of Plutonium Recovery Process by Molten Salt Electrorefining with Liquid Cadmium Cathode," pp 327-341, Jun 2001, which is also available at: http://www.nea.fr/html/pt/docs/iem/madrid00/Proceedings/Paper56.pdf. This reference may be found in the Appendix of this Supplemental Amendment under Tab 12. This article also pertains to Li reduction and electrorefining methods.

13. Applicant offers the following additional article, which also pertains to Li reduction and electrorefining methods: Kuznetsov, S. A., et al., "Determination of Uranium and Rare-Earth Metals Separation Coefficients in LiCl–KCl Melt by Electrochemical Transient Techniques," Journal of Nuclear Materials, Volume

344, Issues 1-3, pp 169-172, September 1, 2005. This reference may be found in the Appendix of this Supplemental Amendment under Tab 13.

14. A copy of the following reference, cited on page 30 of the response to Office Action, which pertains to general methods, could not be obtained: Koma, Y., et al., "Separation Process of Long-Lived Radionuclides for Advanced Fuel Recycling," Global 2001, Paris, France (Sep. 2001). Applicant offers the following substitute article: "Actinide Separation Chemistry in Nuclear Waste Streams and Materials," NEA, Nuclear Science Committee, DOC(97)19, pp 1-115, December 1997. This reference may be found in the Appendix of this Supplemental Amendment under Tab 14. This article pertains to general methods.

15. Applicant offers the following additional article, which also pertains to general methods: Matsumiya, M., et al., "Consecutive Recovery of Rare Earth and Alkaline Earth Elements by Countercurrent Electromigration in Room Temperature Molten Salts," Journal of Electroanalytical Chemistry, Volume 586, Issue 1, pp 12-17, January 1, 2006. This reference may be found in the Appendix of this Supplemental Amendment under Tab 15.

16. Kurata, M., et al., "Conversion of High Level Waste to Chloride for Pyrometallurgical Partitioning of Minor Actinides," Proceedings of 7th Int. Conf. On Radioactive Waste Management and Environmental Remediation, ICEM '99, Nagoya, pp 26-30, September 1999 (cited on page 30 of the Response to Office Action). This reference may be found in the Appendix of this Supplemental Amendment under Tab 16. This article pertains to general methods.

17. Applicant offers the following additional article, which also pertains to general methods: Kinoshita, K., "Estimation of Material Balance in Pyrometallurgical Partitioning Process for TRUs from HLLW," pp 1-10, July 1999, also available at: http://www.nea.fr/html/trw/docs/mol98/session2/SIIpaper7.pdf. This reference may be found in the Appendix of this Supplemental Amendment under Tab 17.

18. Applicant offers the following additional article, which also pertains to general methods: Leturcq, G., et al., "Immobilization of Fission Products Arising From Pyrometallurgical Reprocessing in Chloride Media," Journal of Nuclear Materials, Volume 347, Issues 1-2, pp 1-11, December 1, 2005. This reference may be found in the Appendix of this Supplemental Amendment under Tab 18.

19. A copy of the following reference, cited on page 30 of the Response to Office Action, which pertains to general methods, could not be obtained: Fujii, K., et al., "Effects of Separation of Minor Actinide, Cesium and Strontium on High-level Radioactive Waste Disposal," Proc. of the RRTD 2nd International Workshop on Nuclear Fuel Cycle –Nuclear Fuel Cycle from the Viewpoint of Disposal Site Utilization, Aomori, Japan (Mar. 2003). Applicant offers the following substitute article: Nakamura, M., et al., "Present Status of the OMEGA Program in Japan," Second General Meeting for Information Exchange Meeting on Actinide and Fission Product Separation and Transmutation, pp 24-62, November 11-13, 1992. This reference may be found in the Appendix of this Supplemental Amendment under Tab 19.

CONCLUSION:

Attorney for Applicant believes that these references will be helpful to the Examiner. If a telephone conference would expedite allowance or resolve any additional questions, such a call is invited at the Examiner's convenience.

If any fees are due with this response, please charge any fees due, or credit any overpayment to, deposit account 13-2725.

Respectfully submitted,

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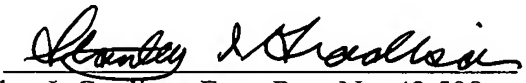
By: 
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Date: April 6, 2006